

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: June 25, 2003, 14:20:41 ; Search time 33 Seconds
(without adjustment)

444.169 million cell updates/sec

Title: US-09-622-613B-19

Sequence: 1 QNWATIQQKHIIKPTPICNT.....ICVKCENQYPVHFAGIGRCP 110

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters:	908470
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Minimum	DB seq	length:	()
Maximum	DB seq	length:	20000000000

Maximum DB seq length: 2000000000

Post-processing:	Minimum Match	08
	Maximum Match	1000

Listing first 45 summaries

Database : A_Geneseq_101002:*

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4	/slds2/gcgdata/genseq/genseqp_emb1/A11983.DAT *
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7	/slds2/gcgdata/genseq/genseqp_emb1/A11986.DAT *
8	/slds2/gcgdata/genseq/genseqp_emb1/A11987.DAT *
9	/slds2/gcgdata/genseq/genseqp_emb1/A11988.DAT *
10	/slds2/gcgdata/genseq/genseqp_emb1/A11989.DAT *
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18	/slds2/gcgdata/genseq/genseqp_emb1/A11997.DAT *
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20	/slds2/gcgdata/genseq/genseqp_emb1/A11999.DAT *
21	/slds2/gcgdata/genseq/genseqp_emb1/A12000.DAT *
22	/slds2/gcgdata/genseq/genseqp_emb1/A12001.DAT *
23	/slds2/gcgdata/genseq/genseqp_emb1/A12002.DAT *

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	594	99.2	110	20	AAV28874	Recombinant RACOR1
2	594	99.2	111	20	AAV28876	Recombinant Met(-)-
3	590	98.5	110	20	AAV28872	Rana catesbeiana C
4	590	98.5	111	20	AAV28873	Recombinant Met(-)-
5	585	97.7	110	20	AAV28877	Recombinant RACOR1
6	585	97.7	111	20	AAV28878	Recombinant Met(-)-
7	576.5	96.2	111	20	AAV33321	Frog lectin protease
8	274.5	45.8	104	18	AAW06544	Antitumor protein
9	273.5	45.7	104	20	AAV28866	Recombinant RAPR1
10	273.5	45.7	105	20	AAV28869	Recombinant Met(-)-

ALIGNMENTS

11	271.5	45.3	104	20	AAV28865	Rana piliplens liver
12	271.5	45.3	105	20	AAV28867	Recombinant Met(-1
13	271.5	45.3	127	20	AAV28879	Rana piliplens Clone
14	267.5	44.7	104	18	AAV30301	Recombinant onc pr
15	267.5	44.7	104	22	AAV31666	Amino acid sequenc
16	267.5	44.7	104	22	AAV31667	Amino acid sequenc
17	267.5	44.7	105	20	AAV39400	Recombinant frog O
18	267.5	44.7	379	18	AAV35126	R. piliplens recombi
19	266.5	44.5	104	18	AAV30302	Recombinant onc pr
20	266.5	44.5	104	20	AAV28870	Recombinant RapA1
21	266.5	44.5	105	20	AAV28871	Recombinant Met(-1
22	264.5	44.2	104	12	AAV2344	Protein with activ
23	264.5	44.2	104	15	AAV47303	ONCONASE (pharmac
24	264.5	44.2	104	17	AAV00736	protein derived fr
25	264.5	44.2	104	18	AAV06543	Antitumour protein
26	264.5	44.2	104	18	AAV14065	Onconase (RTM) pr
27	264.5	44.2	104	20	AAV33322	Frog onconase prote
28	264.5	44.2	104	20	AAV28823	Rana piliplens RNase
29	264.5	44.2	105	18	AAV35122	R. piliplens recomb
30	264.5	44.2	355	18	AAV35125	R. piliplens recomb
31	264.5	44.2	358	18	AAV35130	R. piliplens recomb
32	262.5	43.8	106	18	AAV35122	R. piliplens recomb
33	262.5	43.8	107	18	AAV35117	R. piliplens recomb
34	262.5	43.8	112	18	AAV35118	R. piliplens recomb
35	262.5	43.8	251	18	AAV35134	R. piliplens recomb
36	262.5	43.8	254	18	AAV35135	R. piliplens recomb
37	262.5	43.8	355	18	AAV35129	R. piliplens recomb
38	262.5	43.8	355	18	AAV35133	R. piliplens recomb
39	262.5	43.8	366	18	AAV35132	R. piliplens recomb
40	257.5	43.0	104	18	AAV18224	Antitumour generat
41	257.5	43.0	105	18	AAV35116	R. piliplens recomb
42	257.5	43.0	105	18	AAV35115	R. piliplens recomb
43	253.5	42.3	358	18	AAV35127	R. piliplens recomb
44	253.5	42.3	365	18	AAV35131	R. piliplens recomb
45	239.5	40.0	107	18	AAV35120	R. piliplens recomb

	RESULT 1
ID	AAV28874
	AAV28874 standard; Protein; 110 AA.
AC	AAV28874;
XX	
DT	25-JAN-2000 (first entry)
XX	
DE	Recombinant RacOR1 Met22Leu Met57Leu amino acid sequence.
XX	
KW	Recombinant Rana catesbeiana oocyte ribonuclease; covalently bound;
KM	RacOR1 Met22Leu Met57Leu; LL2 antibody; ligand binding motif; CD22;
KW	cancerous B cell; Kaposi's sarcoma; human chorionadotropin; hCG;
KM	signal peptide; recombinant ribonuclease; cytotoxic fusion protein;
KX	cancer; bullfrog; RNase; autoimmune disease.
XX	
OS	Rana catesbeiana.
CS	Synthetic.
XX	
SH	Key
FT	Misc-difference 22 Location/Qualifiers
FT	/note= "Wild type Met replaced with Leu"
FT	Misc-difference 57 /note= "Wild type Met replaced with Leu"
FT	
XX	
FN	WO950396-A2.
PD	
07-OCT-1999.	
XX	
CE	26-MAR-1999: 99WO-US06641.
XX	
27-MAR-1998:	98US-0079751.
XX	

provis

PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
 XX
 XX Newton DL, Rybak SM;
 PI
 XX
 XX WPI: 1999-610847/52.
 DR N-PSDB: AA208132.
 XX
 PT New recombinant ribonucleases, used for killing target cells, e.g. for
 PT treating cancers, viral infections or autoimmune diseases -
 XX
 PS Claim 22; Page 64; 71pp; English.
 XX
 CC The present sequence is a recombinant Rana catesbeiana oocyte
 CC ribonuclease (RacOR1) protein with Met22Leu Met57Leu. Carboxy terminal
 CC end of recombinant RacOR1 has a covalently bound ligand binding moiety,
 CC which can be a Lf2 antibody directed against CD22 on cancerous B cells
 CC or human chorionic gonadotropin (hCG) effective against Kaposi's sarcoma
 CC cells. Recombinant ribonucleases can be expressed in bacteria without an
 CC N-terminal methionine due to the presence of a signal peptide that is
 CC cleaved by bacteria. The soluble expression of a ribonuclease allows the
 CC proteins to be fused in-frame with ligand binding moieties to form
 CC cytotoxic fusion proteins. They can be used for treatment of cancer and
 CC autoimmune diseases.
 CC
 SO Sequence 110 AA:
 Query Match 98.2%; Score 594; DB 20; Length 110;
 Best Local Similarity 99.1%; Pred. No. 2.1e-60;
 Matches 109; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 OY 1 QNMAFFQOKH IKPIIICNTILDNNIYVGGCKRVNFTFISSATYKATCTGVINLNL 60
 DB 1 QNMAFFQOKH IKPIIICNTILDNNIYVGGCKRVNFTFISSATYKATCTGVINLNL 60
 OY 61 STTRFQNLCTRTSITRPPCPYSSRTETNYICVGCENQYPVHFGIGRCP 110
 DB 61 STTRFQNLCTRTSITRPPCPYSSRTETNYICVGCENQYPVHFGIGRCP 110
 RESULT 2
 AAY28876
 ID AAY28876 standard; Protein: 111 AA.
 XX
 AC AAY28876;
 XX
 DT 25-JAN-2000 (first entry)
 XX
 DE Recombinant Met(-1) RacOR1 Met22Leu Met57Leu-(His)6 protein.
 XX
 KW Met(-1) Rana catesbeiana ribonuclease Met22Leu Met57Leu-(His)6; RacOR1;
 KW recombinant; CD22; covalently bound; Lf2 antibody; ligand binding moiety;
 KW cancerous B cell; Kaposi's sarcoma; human chorionic gonadotropin; hCG;
 KW signal peptide; recombinant ribonuclease; cytotoxic fusion protein;
 KW cancer; bullfrog; RNase; autoimmune disease.
 KW
 OS Rana catesbeiana.
 OS Synthetic.
 XX
 XX Key Location/Qualifiers
 FT MISC-difference 1 /note= "(His)6 histidine tag attached to N-terminal Met"
 FT MISC-difference 1 /note= "Met not found in wild type RacOR1"
 FT MISC-difference 23 /note= "Wild type Met replaced with Leu"
 FT MISC-difference 58 /note= "Wild type Met replaced with Leu"
 FT MISC-difference 58 /note= "Wild type Met replaced with Leu"
 XX
 PN W09950398-A2.
 XX
 XX 07-OCT-1999.
 XX
 XX 26-MAR-1999; 99WO-US06641.
 PF

XX
 PR 27-MAR-1998; 98US-0079751.
 XX
 XX (USSH) US DEPT HEALTH & HUMAN SERVICES.
 PA
 XX
 XX Newton DL, Rybak SM;
 PI
 XX
 XX WPI: 1999-610847/52.
 DR N-PSDB: AA208133.
 XX
 PT New recombinant ribonucleases, used for killing target cells, e.g. for
 PT treating cancers, viral infections or autoimmune diseases -
 XX
 PS Claim 22; Page 66; 71pp; English.
 XX
 CC The present sequence is a recombinant Rana catesbeiana oocyte
 CC ribonuclease (RacOR1) protein with Met at position 1 attached to a
 CC (His)6 tag, Met22Leu and Met58Leu. Carboxy terminal end of recombinant
 CC RacOR1 has a covalently bound ligand binding moiety, which can be a Lf2
 CC antibody directed against CD22 on cancerous B cells or human chorionic
 CC gonadotropin (hCG) effective against Kaposi's sarcoma cells. Recombinant
 CC ribonucleases can be expressed in bacteria without an N-terminal
 CC methionine due to the presence of a signal peptide that is cleaved by
 CC bacteria. The soluble expression of ribonuclease allows the proteins to
 CC be fused in-frame with ligand binding moieties to form cytotoxic fusion
 CC proteins. They can be used for treatment of cancer and autoimmune
 CC diseases.
 CC
 SO Sequence 111 AA:
 Query Match 99.2%; Score 594; DB 20; Length 111;
 Best Local Similarity 99.1%; Pred. No. 2.1e-60;
 Matches 109; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 OY 1 QNMAFFQOKH IKPIIICNTILDNNIYVGGCKRVNFTFISSATYKATCTGVINLNL 60
 DB 2 QNMAFFQOKH IKPIIICNTILDNNIYVGGCKRVNFTFISSATYKATCTGVINLNL 61
 OY 61 STTRFQNLCTRTSITRPPCPYSSRTETNYICVGCENQYPVHFGIGRCP 110
 DB 62 STTRFQNLCTRTSITRPPCPYSSRTETNYICVGCENQYPVHFGIGRCP 111
 RESULT 3
 AAY28872
 ID AAY28872 standard; Protein: 110 AA.
 XX
 AC AAY28872;
 XX
 DT 25-JAN-2000 (first entry)
 XX
 DE Rana catesbeiana oocyte ribonuclease (RacOR1) amino acid sequence.
 XX
 KW Rana catesbeiana oocyte ribonuclease; RacOR1; covalently bound; CD22;
 KW Lf2 antibody; ligand binding moiety; cancerous B cell; Kaposi's sarcoma;
 KW human chorionic gonadotropin; hCG; recombinant ribonuclease; bullfrog;
 KW signal peptide; cytotoxic fusion protein; cancer; autoimmune disease;
 KW RNase.
 KW
 OS Rana catesbeiana.
 OS Synthetic.
 XX
 XX Key Location/Qualifiers
 FT MISC-difference 1 /note= "(His)6 histidine tag attached to N-terminal Met"
 FT MISC-difference 1 /note= "Met not found in wild type RacOR1"
 FT MISC-difference 23 /note= "Wild type Met replaced with Leu"
 FT MISC-difference 58 /note= "Wild type Met replaced with Leu"
 FT MISC-difference 58 /note= "Wild type Met replaced with Leu"
 XX
 PN W09950398-A2.
 XX
 XX 07-OCT-1999.
 XX
 XX 26-MAR-1999; 99WO-US06641.
 XX
 XX 27-MAR-1998; 98US-0079751.
 XX
 XX (USSH) US DEPT HEALTH & HUMAN SERVICES.
 PA
 XX
 XX Newton DL, Rybak SM;
 PI

XX WPI: 1999-610847/52.
DR N-PSDB: AAZ08130.
PT New recombinant ribonucleases, used for killing target cells, e.g. for
PS treating cancers, viral infections or autoimmune diseases
PS Claim 22: Page 62: 71pp: English.

The present sequence is a Rana catesbeiana oocyte ribonuclease (RACOR1)
protein encoded by a cDNA modified for expression in E. coli. Carboxy
terminal end of RACOR1 has a covalently bound ligand binding moiety,
which can be a LL2 antibody directed against CD22 on cancerous B cells
or human chorionic gonadotropin (hCG) effective against Kaposi's
Sarcoma cells. Recombinant ribonucleases can be expressed in bacteria
without an N-terminal methionine due to the presence of a signal peptide
that is cleaved by bacteria. The soluble expression of ribonuclease
allows the proteins to be fused in-frame with ligand binding moieties to
form cytotoxic fusion proteins. They can be used for treatment of cancer
and autoimmune diseases.

XX Sequence 110 AA:
SQ

Query Match 98.5%; Score 590; DB 20; Length 110;
Best Local Similarity 97.3%; Pred. No. 6.1e-60;
Matches 107; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 QNMAFFQOKHIIKPIICNTILDNNIYVGGCKRVNFIISATYKAICTGVINLNL 60
DB 1 QNMAFFQOKHIIKPIICNTILDNNIYVGGCKRVNFIISATYKAICTGVINLNL 60
QY 61 STTRFQNLCTRTSITPRPCPYSSRTETNYICVGCENQYPVHFAGIGRCP 110
DB 61 STTRFQNLCTRTSITPRPCPYSSRTETNYICVGCENQYPVHFAGIGRCP 110

RESULT 4
AAZ28873
ID AAY28873 standard; Protein: 111 AA.
XX
AC AAY28873:
XX
DT 25-JAN-2000 (first entry)
XX
DE Recombinant Met(-1) RACOR1.
XX
KM Recombinant Met(-1) Rana catesbeiana oocyte ribonuclease; RACOR1; CD22;
KM covalently bound; LL2 antibody; ligand binding moiety; cancerous B cell;
KM Kaposi's sarcoma; human chorionic gonadotropin; hCG; signal peptide;
KM recombinant ribonuclease; cytotoxic fusion protein; cancer; bullfrog;
KM RNase; autoimmune disease.
XX
OS Rana catesbeiana.
OS Synthetic.
OS
FH Key Location/Qualifiers
FT Misc-difference 1 /note= "Met not found in wild type RACOR1"
FT
PN WO9950398-A2.
PD 07-OCT-1999.
XX
PF 26-MAR-1999; 99WO-US06641.
XX
PR 27-MAR-1998; 98US-0079751.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Newton DL, Rybak SM;
XX
DR WPI: 1999-610847/52.
DR N-PSDB: AAZ08131.

XX
PT New recombinant ribonucleases, used for killing target cells, e.g. for
PT treating cancers, viral infections or autoimmune diseases
XX
PS Claim 22: Page 63: 71pp: English.

The present sequence is a recombinant Rana catesbeiana oocyte
ribonuclease (RACOR1) protein with Met at position 1. Carboxy terminal
end of recombinant RACOR1 has a covalently bound ligand binding moiety,
which can be a LL2 antibody directed against CD22 on cancerous B cells or
human chorionic gonadotropin (hCG) effective against Kaposi's sarcoma
cells. Recombinant ribonucleases can be expressed in bacteria without an
N-terminal methionine due to the presence of a signal peptide that is
cleaved by bacteria. The soluble expression of ribonuclease allows the
proteins to be fused in-frame with ligand binding moieties to form
cytotoxic fusion proteins. They can be used for treatment of cancer and
autoimmune diseases.

XX Sequence 111 AA:
SQ

Query Match 98.5%; Score 590; DB 20; Length 111;
Best Local Similarity 97.3%; Pred. No. 6.2e-60;
Matches 107; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

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DB 2 QNMAFFQOKHIIKPIICNTILDNNIYVGGCKRVNFIISATYKAICTGVINLNL 61
QY 61 STTRFQNLCTRTSITPRPCPYSSRTETNYICVGCENQYPVHFAGIGRCP 110
DB 62 STTRFQNLCTRTSITPRPCPYSSRTETNYICVGCENQYPVHFAGIGRCP 111

RESULT 5
AAZ28877
ID AAY28877 standard; Protein: 110 AA.
XX
AC AAY28877:
XX
DT 25-JAN-2000 (first entry)
XX
DE Recombinant RACOR1 Glutiser amino acid sequence.
XX
KM Recombinant Rana catesbeiana oocyte ribonuclease; RACOR1 Glutiser; CD22;
KM covalently bound; LL2 antibody; ligand binding moiety; cancerous B cell;
KM bullfrog; Kaposi's sarcoma; human chorionic gonadotropin; hCG; RNase;
KM signal peptide; recombinant ribonuclease; cytotoxic fusion protein;
KM cancer; autoimmune disease.
XX
OS Rana catesbeiana.
OS Synthetic.
OS
FH Key Location/Qualifiers
FT Misc-difference 1 /note= "Wild type Glu replaced with Ser"
FT
PN WO9950398-A2.
PD 07-OCT-1999.
XX
PF 26-MAR-1999; 99WO-US06641.
XX
PR 27-MAR-1998; 98US-0079751.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Newton DL, Rybak SM;
XX
DR WPI: 1999-610847/52.
DR N-PSDB: AAZ08134.
XX
PT New recombinant ribonucleases, used for killing target cells, e.g. for
PT treating cancers, viral infections or autoimmune diseases


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Oy      1 QMNTFQOKHIIRK-PIICNTILDNNIYIVGQCKRVNFIISATYKAICTGYI-ILN 58
Db      1 IDMLVTRKKHLLTRPDVDCNNILSTLWLF---HCKDKNFITISREPRPKAIKGIASN 56
Oy      59 VISTTFEOLNCTCRISITPRPCPSKRTITNICYKCNQYVHFAGIGRC 109
Db      57 VLTTFSEFYISDC--NVTISRPCKYKIKLKSTNTECVTCENQAPHFVGVGHC 104

RESULT 10
AA28869
XX      AAY28869 standard; Protein: 105 AA.
XX
XX      AAY28869;
XX
XX      25-JAN-2000 (first entry)
XX
XX      Recombinant Met(-1) RapLRI Met233Leu-(His)6 protein.
XX
XX      Recombinant Met(-1) Rana pipiens ribonuclease Met233Leu-(His)6; RapLRI;
XX      CD22; covalently bound; LL2 antibody; ligand binding moiety; RNase;
XX      cancerous B cell; Kaposi's sarcoma; human chorionic gonadotropin; hCG;
XX      signal peptide; recombinant ribonuclease; cytotoxic fusion protein;
XX      cancer; frog; autoimmune disease.
XX
XX      Rana pipiens.
XX      Synthetic.
XX
XX      Key Location/Qualifiers
FH      Misc-difference 1 /note= "(His)6 histidine tag attached to N-terminal Met"
FT
FT      Misc-difference 1 /note= "Met not found in wild type RapLRI"
FT
FT      Misc-difference 24 /note= "Wild type Met replaced with Leu"
XX
XX      WO950398-A2.
XX
XX      07-OCT-1999.
XX
XX      PD
XX      PF 26-MAR-1999; 99WO-US06641.
XX      PR 27-MAR-1998; 98US-0079751.
XX      PA (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX      PI Newton DL, Rybak SM;
XX      WP1: 1999-610847/52.
XX      DR N-PSDB; AAZ08127.
XX
XX      New recombinant ribonucleases, used for killing target cells, e.g. for
XX      treating cancers, viral infections or autoimmune diseases
XX
XX      Claim 4; Page 59; 71pp; English.
XX
XX      The present sequence is a recombinant Rana pipiens ribonuclease protein
XX      (RapLRI) with Met at position 1 attached to (His)6 tag and Met24Leu.
XX      Carboxy terminal end of recombinant RapLRI has a covalently bound ligand
XX      binding moiety which can be a LL2 antibody directed against CD22 on
XX      cancerous B cells or human chorionic gonadotropin (hCG) effective
XX      against Kaposi's sarcoma cells. Recombinant ribonucleases can be
XX      expressed in bacteria without an N-terminal methionine due to the
XX      presence of a signal peptide that is cleaved by bacteria. The soluble
XX      expression of ribonuclease allows the proteins to be used in-frame with
XX      ligand binding moieties to form cytotoxic fusion proteins. They can be
XX      used for treatment of cancer and autoimmune diseases.
XX
XX      Sequence 105 AA;
XX

```

Query Match	45.7%	Score 273.5	DB 20	Length 105
Best Local Similarity	48.6%	Pred. No. 1.2e-23		
Matches	54	Conservative	15	Mismatches 33; Indels 9; Gaps 4
QY	1 QNMATFOOKHLIKT-PIICNTILDNINIVYGOCGRVTFIISATVKAICTGVI-NLN	58		
Db	2 QDMLTFOOKHLINTRDVDCNNILSTNLF---HCKDKNTFIYSRPEPYKAICKGIIASKN	57		
QY	59 VLSTTRQLNTCTSTITPRPCPYSSRTETNYICVCKENQYPVHFAGIGRC	109		
Db	58 VLTTSEFYLSDC---NVTSRCKYKIKKSTNTFCVTCENQAPVHFVGVGHC	105		
RESULT 11				
ID	AAV28865 standard; Protein; 104 AA.			
AAV28865				
AC	AAV28865;			
XX				
DT	25-JAN-2000 (first entry)			
XX				
DE	Rana pipiens liver ribonuclease (RaplR1).			
KW	Rana pipiens liver ribonuclease; RapLR1; covalently bound; LL2 antibody;			
KM	ligand binding moiety; CD22; cancerous B cell; Kaposi's Sarcoma; frog;			
KW	human chorionic gonadotropin; hCG; recombinant ribonuclease; RNase;			
KW	signal peptide; cytotoxic fusion protein; cancer; autoimmune disease.			
XX				
OS	Rana pipiens.			
PN	WC0950398-A2.			
XX				
PD	07-OCT-1999.			
XX				
PF	26-MAR-1999; 99WO-US06641.			
XX				
PR	27-MAR-1998; 98US-0079751.			
XX				
PA	(USSH) US DEPT HEALTH & HUMAN SERVICES.			
XX				
PI	Newton DL, Rybak SM;			
XX				
DR	WPI: 1999-610847/52.			
XX				
PT	N-PSDB: AA08124.			
XX				
PT	New recombinant ribonucleases, used for killing target cells, e.g. for			
XX	treating cancers, viral infections or autoimmune diseases			
XX	Claim 1; Page 55; 71pp; English.			
XX				
CC	The present sequence is Rana pipiens liver ribonuclease (RaplR1)			
CC	protein. Carboxy terminal end of RapLR1 has a covalently bound			
CC	ligand binding moiety, which can be a LL2 antibody directed against			
CC	CD22 on cancerous B cells or human chorionic gonadotropin (hCG)			
CC	effective against Kaposi's Sarcoma cells. Recombinant ribonucleases can			
CC	be expressed in bacteria without an N-terminal methionine due to the			
CC	presence of a signal peptide that is cleaved by bacteria. The soluble			
CC	expression of ribonuclease allows the proteins to be fused in-frame with			
CC	ligand binding moieties to form cytotoxic fusion proteins. They can be			
CC	used for treatment of cancer and autoimmune diseases.			
XX				
SO	Sequence 104 AA;			
Query Match	45.3%	Score 271.5	DB 20	Length 104
Best Local Similarity	47.7%	Pred. No. 2e-23		
Matches	53	Conservative	16	Mismatches 33; Indels 9; Gaps 4
QY	1 QNMATFOOKHLIKT-PIICNTILDNINIVYGOCGRVTFIISATVKAICTGVI-NLN	58		
Db	1 QDMLTFOOKHLINTRDVDCNNILSTNLF---HCKDKNTFIYSRPEPYKAICKGIIASKN	56		
QY	59 VLSTTRQLNTCTSTITPRPCPYSSRTETNYICVCKENQYPVHFAGIGRC	109		
Db	58 VLTTSEFYLSDC---NVTSRCKYKIKKSTNTFCVTCENQAPVHFVGVGHC	105		
QY	59 VLSTTRQLNTCTSTITPRPCPYSSRTETNYICVCKENQYPVHFAGIGRC	109		

Db 57 VLTSEFYISDC---NVTSPCKYKLRKSTMTFCVTCENQAPVHFVGHC 104

RESULT 12

AAV28867 ID AAY28867 standard; Protein: 105 AA.

AC AAY28867;

DT 25-JAN-2000 (first entry)

DE Recombinant Met(-1) RapLRL.

XX Recombinant Met(-1) Rana pipiens ribonuclease; RapLRL; CD22; RNase;

KM covalently bound; LL2 antibody; ligand binding moiety; cancerous B cell;

KM Kaposi's sarcoma; human chorionic gonadotropin; hCG; signal peptide;

KM recombinant ribonuclease; cytotoxic fusion protein; cancer; frog;

XX autoimmune disease.

OS Rana pipiens.

XX Synthetic.

FT Key

FT Location/Qualifiers

FT Misc-difference 1

FT /note= "Met not found in wild type RapLRL"

XX W09950398-A2.

PD 07-OCT-1999.

XX 26-MAR-1999; 99WO-US06641.

PF 27-MAR-1998; 98US-0079751.

XX (USSH) US DEPT HEALTH & HUMAN SERVICES.

XX Newton DL, Rybak SM.

XX WPI: 1999-610347/52.

DR N-PSDB; AA208126.

XX New recombinant ribonucleases, used for killing target cells, e.g. for

XX treating cancers, viral infections or autoimmune diseases

XX Claim 34; Page 57; 71pp; English.

XX The present sequence is a recombinant Rana pipiens ribonuclease (RapLRL)

XX protein with Met at position 1. Carboxy terminal end of recombinant

CC RapLRL has a covalently bound ligand binding moiety, which can be a LL2

CC antibody directed against CD22 on cancerous B cells or human chorionic

CC gonadotropin (hCG) effective against Kaposi's sarcoma cells. Recombinant

CC ribonucleases can be expressed in bacteria without an N-terminal

CC methionine due to the presence of a signal peptide that is cleaved by

CC bacteria. The soluble expression of ribonuclease allows the proteins to

CC be fused in-frame with ligand binding moieties to form cytotoxic fusion

CC proteins. They can be used for treatment of cancer and autoimmune

CC diseases.

XX Sequence 105 AA;

SQ

Query Match 45.3%; Score 271.5; DB 20; Length 105;

Best Local Similarity 47.7%; Pred. No. 2, 1e-23;

Matches 53; Conservative 16; Mismatches 33; Indels 9; Gaps 4;

OY 1 QMNAFQOKHIKT-PIICNTILDNNIYVGQCKRVNTFISSATVKAICTGVI-NLN 58

DB 2 QMNAFQOKHIKT-PIICNTILDNNIYVGQCKRVNTFISSATVKAICTGVI-NLN 57

OY 59 VLTSEFYISDC---NVTSPCKYKLRKSTMTFCVTCENQAPVHFVGHC 109

DB 58 VLTSEFYISDC---NVTSPCKYKLRKSTMTFCVTCENQAPVHFVGHC 105

RESULT 13

AAV28879 ID AAY28879 standard; Protein: 127 AA.

AC AAY28879;

DT 25-JAN-2000 (first entry)

DE Rana pipiens Clone 5a1b ribonuclease.

XX Rana pipiens ribonuclease Clone 5a1b; RapLRL; covalently bound; RNase;

KM LL2 antibody; ligand binding moiety; CD22; cancerous B cell; onconase;

KM Kaposi's Sarcoma; human chorionic gonadotropin; hCG; cancer;

KM recombinant ribonuclease; frog; signal peptide; cytotoxic fusion protein;

XX autoimmune disease.

OS Rana pipiens.

XX Key

XX Location/Qualifiers

FT Peptide 1..23

FT /label= "Signal peptide"

FT /note= "Putative"

FT Protein 24..127

XX W09950398-A2.

PD 07-OCT-1999.

XX 26-MAR-1999; 99WO-US06641.

PF 27-MAR-1998; 98US-0079751.

XX (USSH) US DEPT HEALTH & HUMAN SERVICES.

XX Newton DL, Rybak SM.

XX WPI: 1999-610847/52.

DR N-PSDB; AA208136.

XX New recombinant ribonucleases, used for killing target cells, e.g. for

XX treating cancers, viral infections or autoimmune diseases

XX Disclosure; Page 69; 71pp; English.

XX The present sequence is a Rana pipiens Clone 5a1b ribonuclease (RapLRL)

CC It is encoded by Clone 5a1b cDNA obtained from Rana pipiens liver mRNA

CC library. It exhibits differences with Onconase (RPM) at amino acid

CC residues 11, 20, 85 and 103. Carboxy terminal end of RapLRL has a

CC covalently bound ligand binding moiety, which can be a LL2 antibody

CC directed against CD22 on cancerous B cells or human chorionic

CC gonadotropin (hCG) effective against Kaposi's Sarcoma cells. Recombinant

CC ribonucleases can be expressed in bacteria without an N-terminal

CC methionine due to the presence of a signal peptide that is cleaved by

CC bacteria. The soluble expression of ribonuclease allows the proteins to

CC be fused in-frame with ligand binding moieties to form cytotoxic fusion

CC proteins. They can be used for treatment of cancer and autoimmune

CC diseases.

XX Sequence 127 AA;

SQ

Query Match 45.3%; Score 271.5; DB 20; Length 127;

Best Local Similarity 47.7%; Pred. No. 2, 6e-23;

Matches 53; Conservative 16; Mismatches 33; Indels 9; Gaps 4;

OY 1 QMNAFQOKHIKT-PIICNTILDNNIYVGQCKRVNTFISSATVKAICTGVI-NLN 58

DB 24 QMNAFQOKHIKT-PIICNTILDNNIYVGQCKRVNTFISSATVKAICTGVI-NLN 79

OY 59 VLTSEFYISDC---NVTSPCKYKLRKSTMTFCVTCENQAPVHFVGHC 109

DB 80 VLTSEFYISDC---NVTSPCKYKLRKSTMTFCVTCENQAPVHFVGHC 127

